

OBFUCIA | Documentation

User Documentation

Contents

General Information 3

Application Overview 3

Organization of the Manual 3

Installation Instructions 4

System Requirements 4

Installation Instructions 4

Known Installation Issues 6

Installation Troubleshooting 6

Using the Application 8

Application Components 8

Concealing an Image 10

Extracting an Image 13

Accessing Documentation 15

General Information

Application Overview

Obfucia is an application designed to hide images or text inside of another image using the practice of steganography. A user can choose an image, take a webcam picture, or write a message using ASCII text and embed this information into another image.

Organization of the Manual

The user's manual consists of three sections: General Information, Installation Instructions, and Using the Application.

The General Information section explains what the application does and how the user's manual is organized.

The Installation Instructions explain the minimum system requirements, how to install the program and troubleshoot any issues that may arise with installation.

The Using the Application section explains the different parts of the application and how to conceal and extract information from images.

Installation Instructions

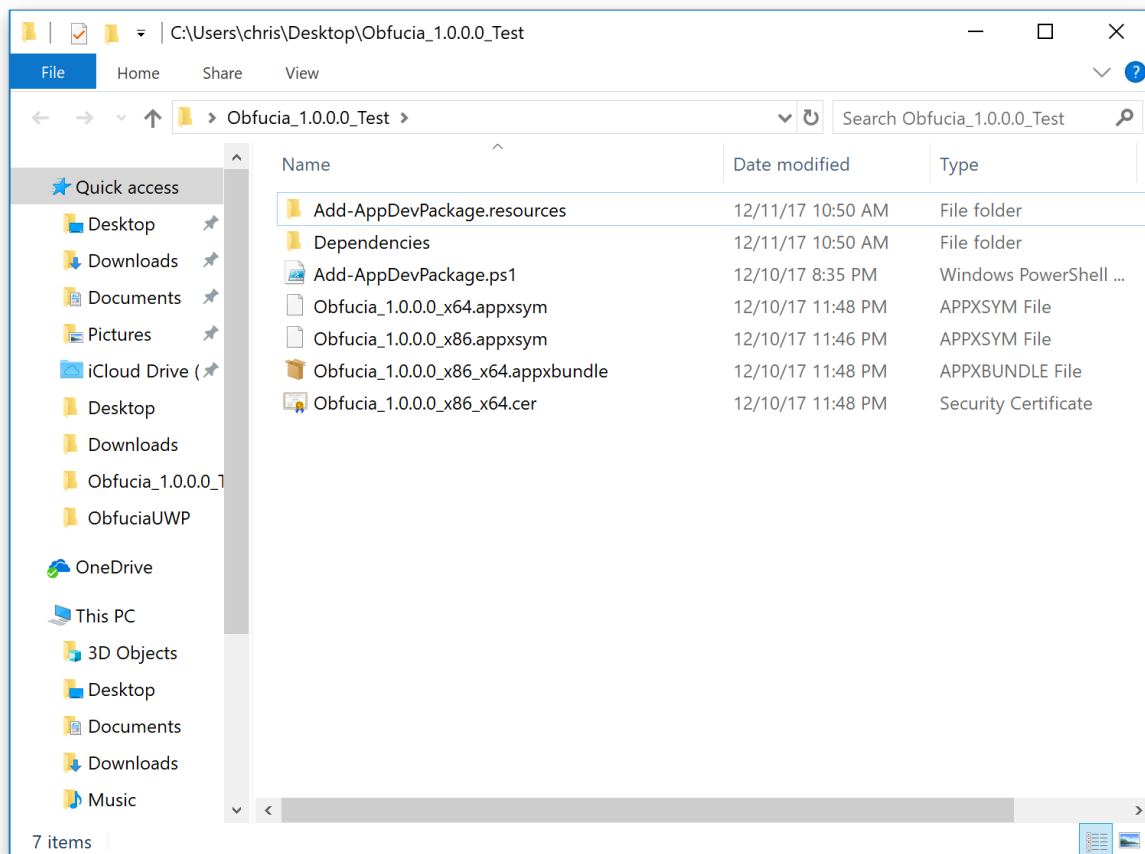
Minimum Systems Requirements

There are the minimum system requirements for installing and using Obfucia:

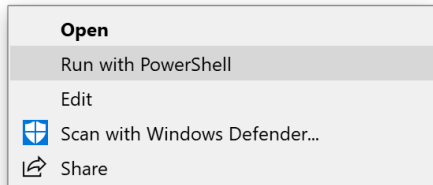
Microsoft Windows 10.0 (Fall Creators Update; Build 16299)

Installation Instructions

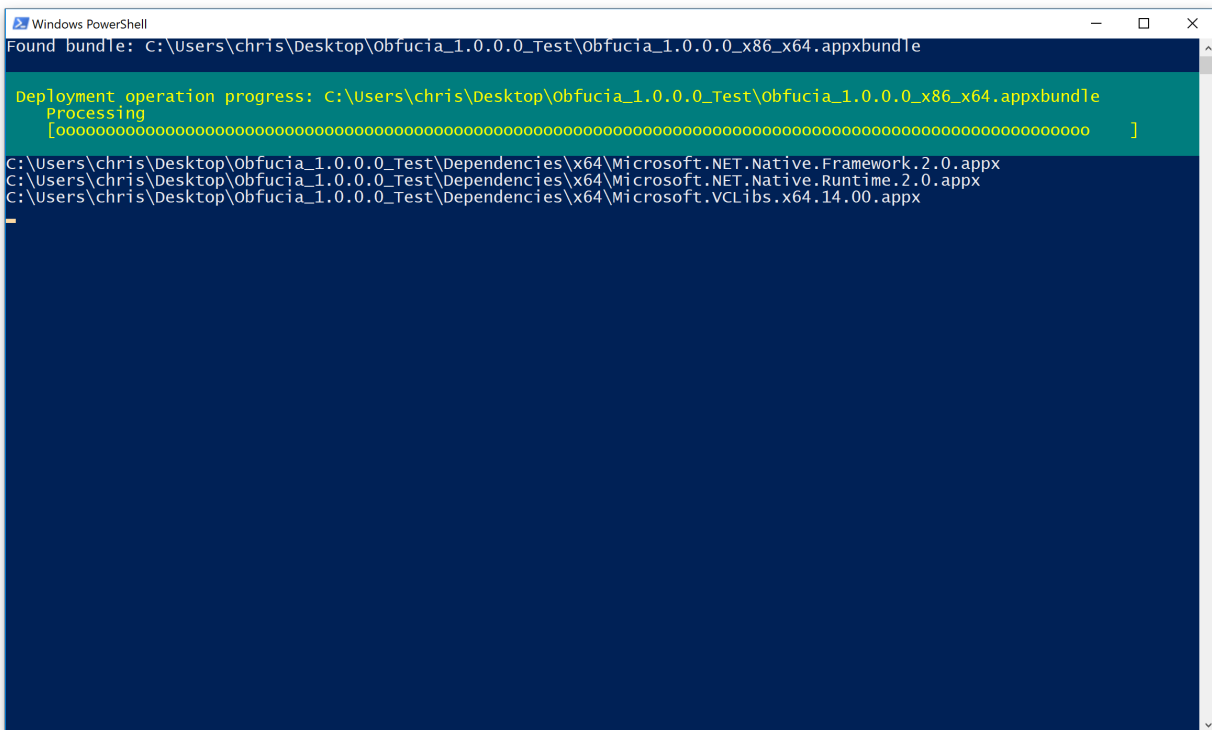
To install Obfucia, download the obfucia.zip file from www.obfucia.com/download. Unzip the file to your desktop, and double-click on the Obfucia 1.0.0.0 folder:



Right-click with your mouse on Add-AppDevPackage.ps1 and choose Run with PowerShell:



Obfucia uses a Microsoft PowerShell installation script to install it locally on your PC. This ensures all application dependencies are installed alongside the application. You will see the following screen upon running with PowerShell:

A screenshot of a Windows PowerShell window. The title bar says 'Windows PowerShell'. The command prompt shows the path to the bundle: 'C:\Users\chris\Desktop\Obfucia_1.0.0.0_Test\Obfucia_1.0.0.0_x86_x64.appxbundle'. Below this, a green progress bar is shown with the text 'Deployment operation progress: C:\Users\chris\Desktop\Obfucia_1.0.0.0_Test\Obfucia_1.0.0.0_x86_x64.appxbundle' and 'Processing' followed by a long string of dots. At the bottom, the paths for the dependencies are listed: 'C:\Users\chris\Desktop\Obfucia_1.0.0.0_Test\Dependencies\x64\Microsoft.NET.Native.Framework.2.0.appx', 'C:\Users\chris\Desktop\Obfucia_1.0.0.0_Test\Dependencies\x64\Microsoft.NET.Native.Runtime.2.0.appx', and 'C:\Users\chris\Desktop\Obfucia_1.0.0.0_Test\Dependencies\x64\Microsoft.VCLibs.x64.14.00.appx'.

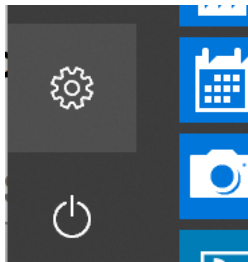
The progress bar for installation is shown at the top in turquoise. Once complete, you will see "Success: Your app was successfully installed. Press Enter to continue..." This means that Obfucia was successfully installed. You can press enter and the PowerShell window should disappear. If pressing enter does not work, simply close the PowerShell window by pressing the X in the top right corner of the window.

Known Installation Issues

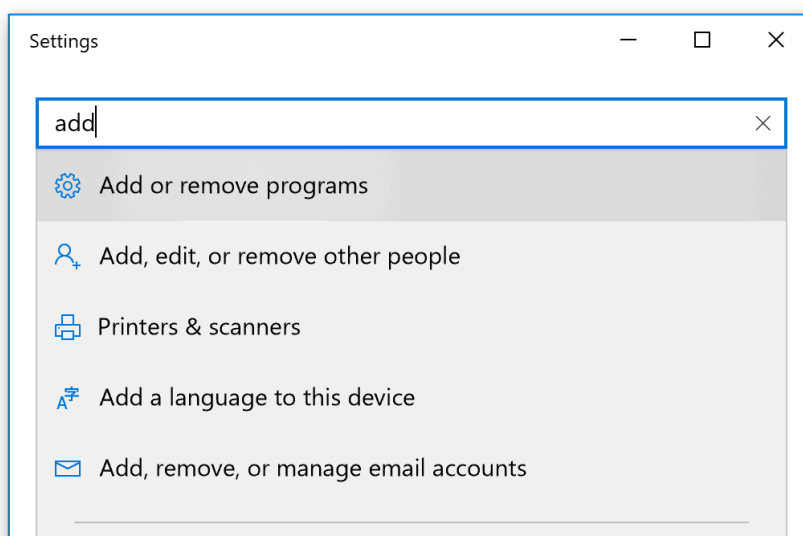
- The PowerShell script may not exit when the user presses enter when prompted. This can be easily remedied by closing the PowerShell script manually. This issue will not impact the installation of the application or its dependencies.

Installation Troubleshooting

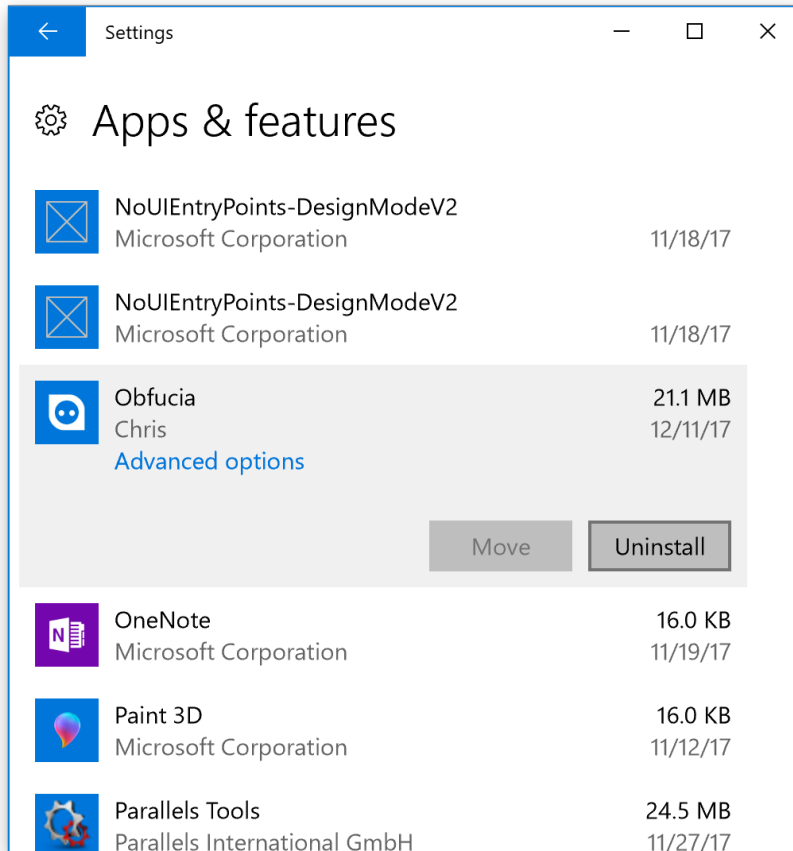
Obfucia is a lightweight program that relies on Microsoft native technologies. This means that few issues are usually encountered during installation. Most installation issues can be remedied by uninstalling Obfucia and then attempting a re-install. To uninstall Obfucia, go to settings in the Windows Start Menu:



Then search for Add or Remove Programs:



Finally, find Obfucia click on it once, and select Uninstall:



After un-installing, use the installation instructions on page 4 of the user documentation to re-install Obfucia.

There may be some issues where uninstalling and re-installing Obfucia will not lead to a successful installation. In this case:

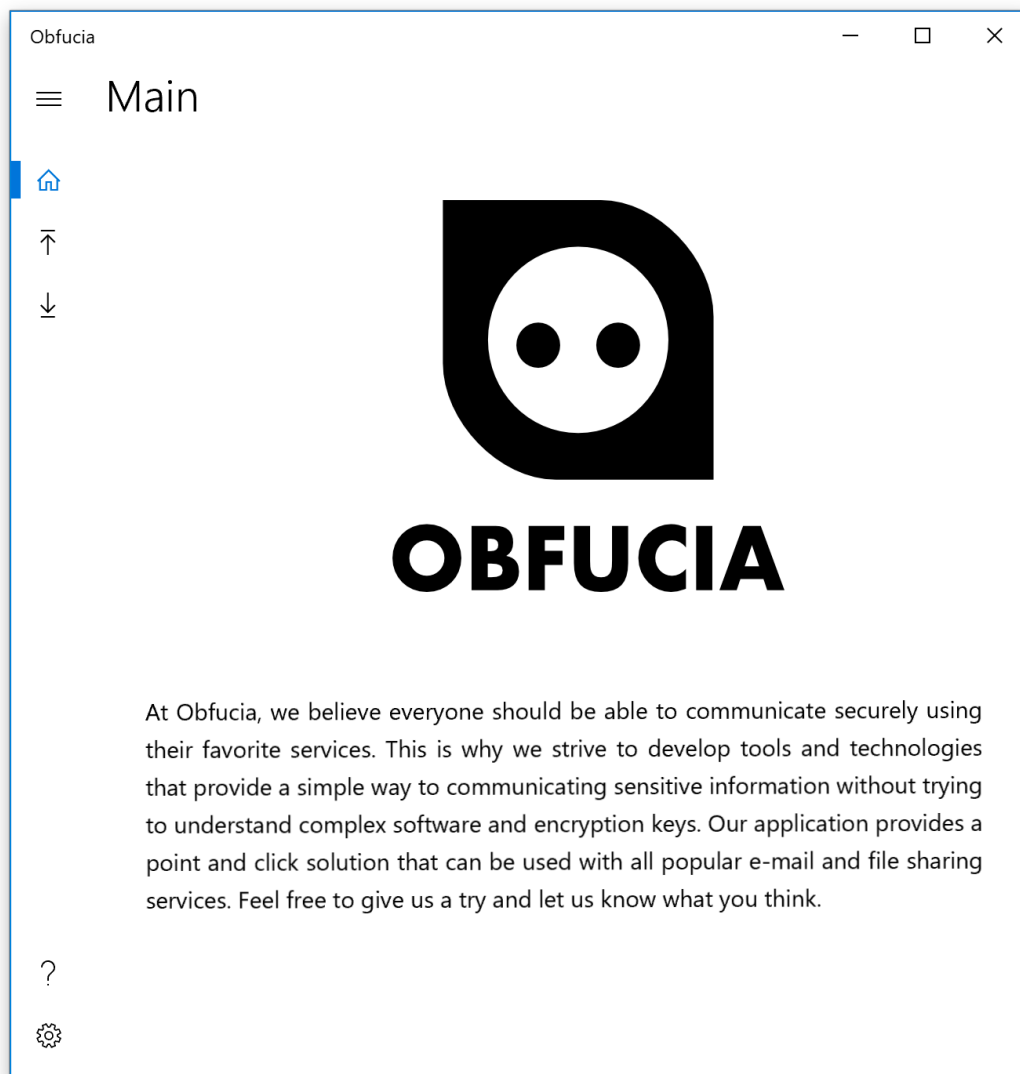
- Make sure you are using Windows 10 Fall Creators Update. This is the latest update to Windows 10 and is required to Obfucia to work.
- Run Windows Update to ensure you have the latest patches and updates from Microsoft.

If you continue to have issues, contact support at support@obfucia.com.

Using the Application

Application Components

Obfucia's user interface is designed to be modern, clean, and easy to use. Utilizing Microsoft's latest design principles, Obfucia is built on top of the Universal Windows Platform. This mean that using Obfucia should be easy and familiar. Below is the home screen that appears when you open Obfucia:



There are only three main areas of navigation: Home, Conceal Information, and Extract Information. The following are the application navigation buttons and their functions:



Brings the user to the home screen



This will initiate the conceal information process



This will initiate the extract information process



This will bring you to the help section to download all documentation



This will bring you to the settings page



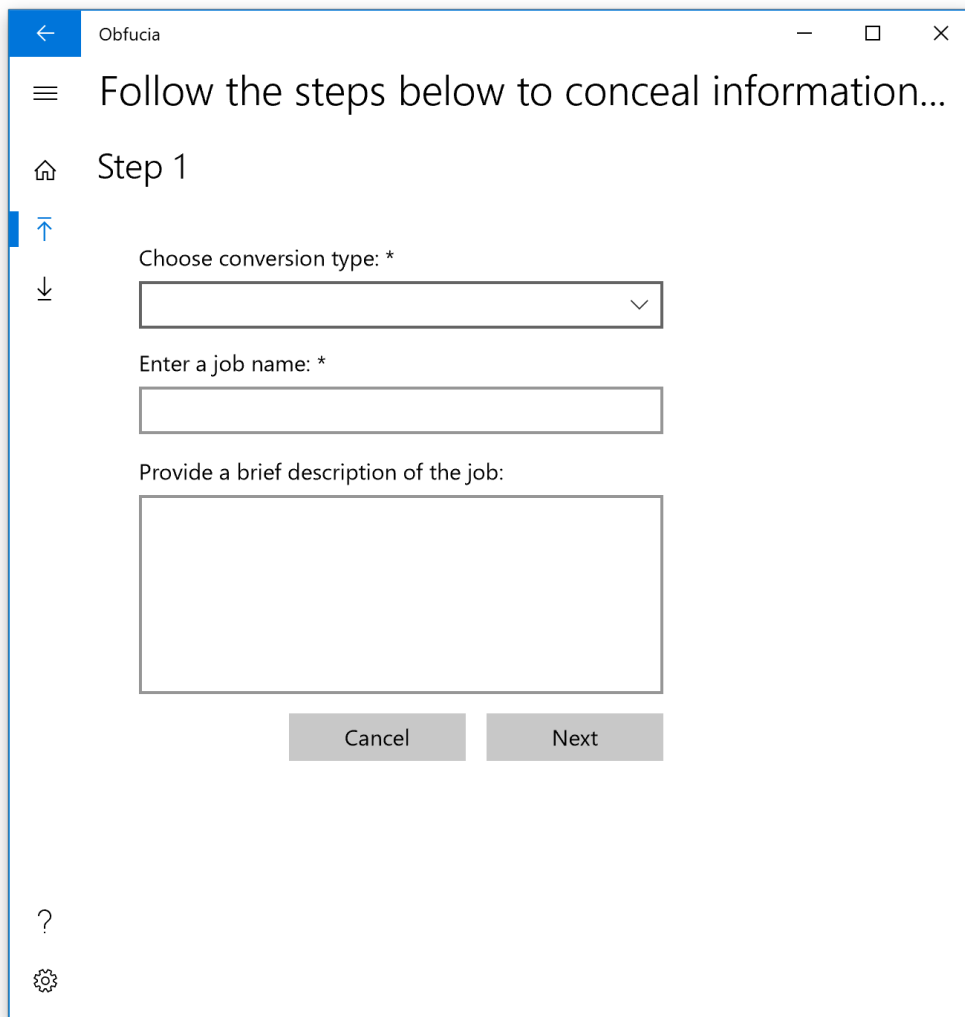
This is the file loader button for adding images



This is the camera button for adding webcam images

Concealing Information

To conceal information, click the conceal information button in the left navigation bar. This will bring you to step one of the conceal information process as seen below:

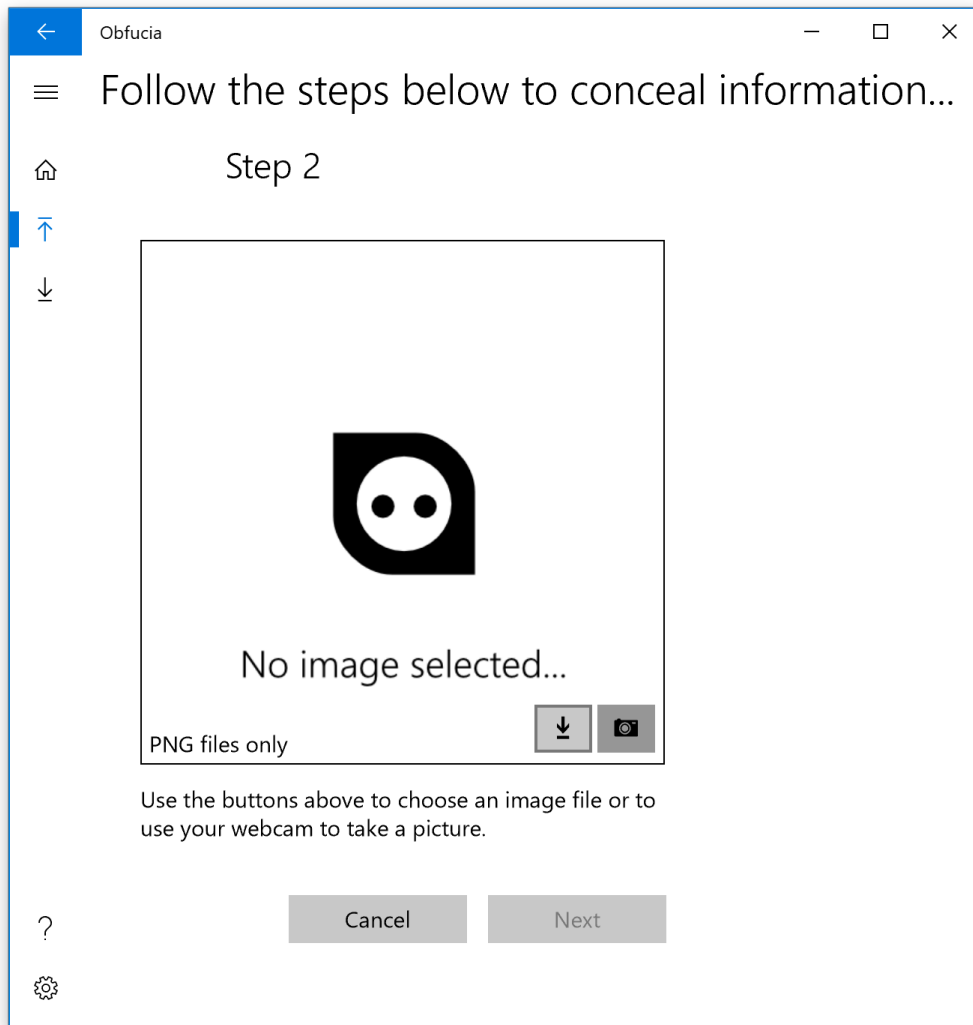


The screenshot shows a web application window titled 'Obfucia'. The main heading is 'Follow the steps below to conceal information...'. Below this, it says 'Step 1'. On the left side, there is a vertical navigation bar with a blue highlight on the 'Step 1' icon. The main content area contains three form fields: a dropdown menu labeled 'Choose conversion type: *', a text input field labeled 'Enter a job name: *', and a larger text area labeled 'Provide a brief description of the job:'. At the bottom of the form, there are two buttons: 'Cancel' and 'Next'. In the bottom left corner of the window, there is a question mark icon and a gear icon.

In this step, choose your conversion type of either Image to Image, or ASCII to Image. Image to Image will take a source image and obfuscate it inside of a target image. ASCII to Image will take ASCII text you write and obfuscate it within a target image. You must choose a conversion type and enter a job name before proceeding to the next step.

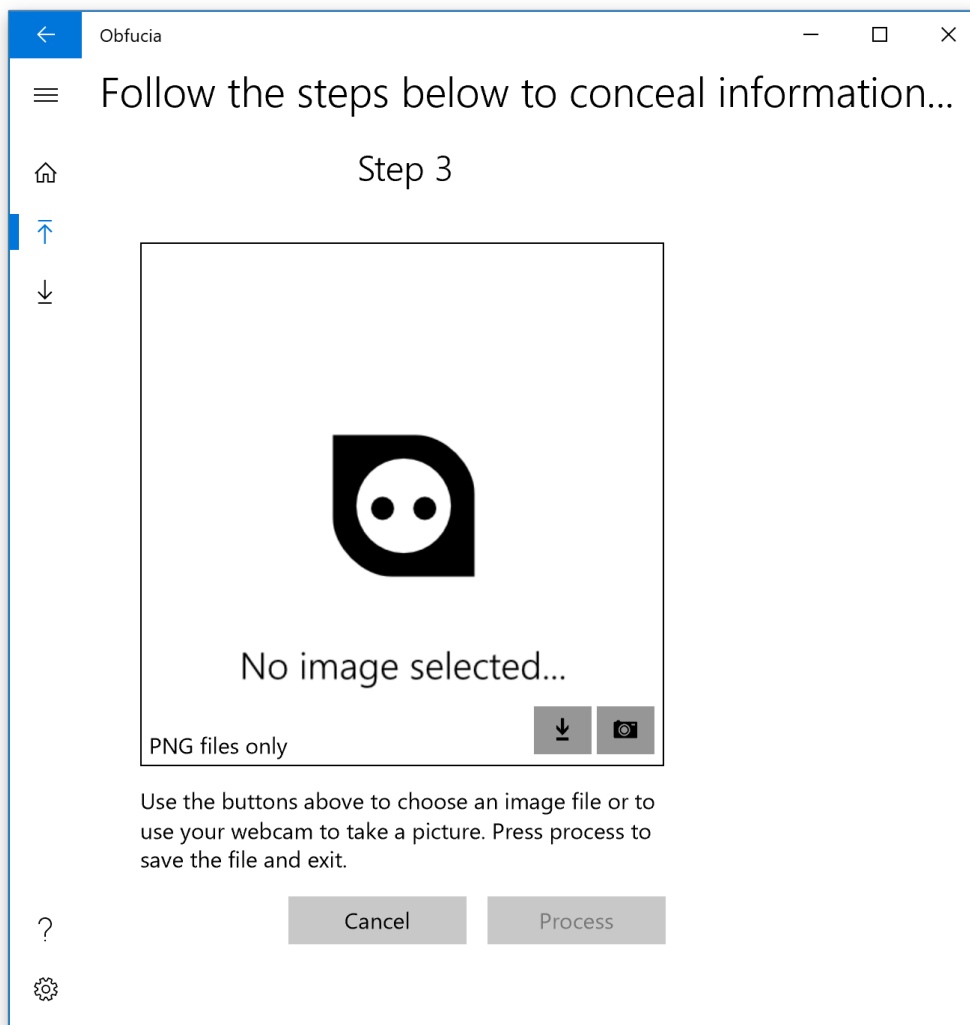
Step two of the conceal process will ask you to choose a picture, take a picture with your webcam, or enter ASCII text if you chose that option. If you chose the ASCII to Image option, the image placeholder field will be replaced with a free text field.

NOTE: Obfucia currently supports only PNG image file types at this time.



Step three of the conceal process will again ask you to choose an image or take a picture with your webcam. There is not ASCII option in step three of the conceal process. When you have selected an image, press proceed to choose a location to save the output image with your information hidden.

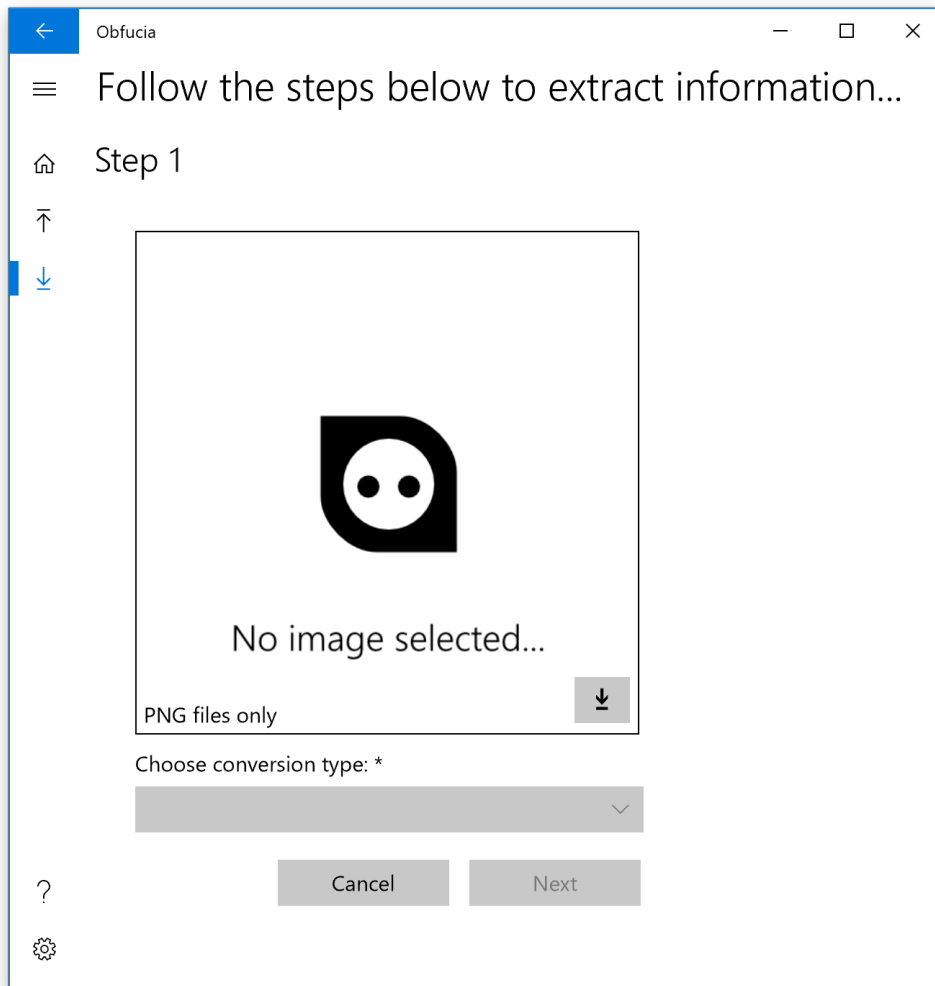
NOTE: Obfucia currently supports only PNG image file types at this time.



That's it! The output image can be transmitted any number of ways to others you want to share confidential information with. They can use Obfucia to decode the information and see your message. Please refer to the next section for information on how to extract information.

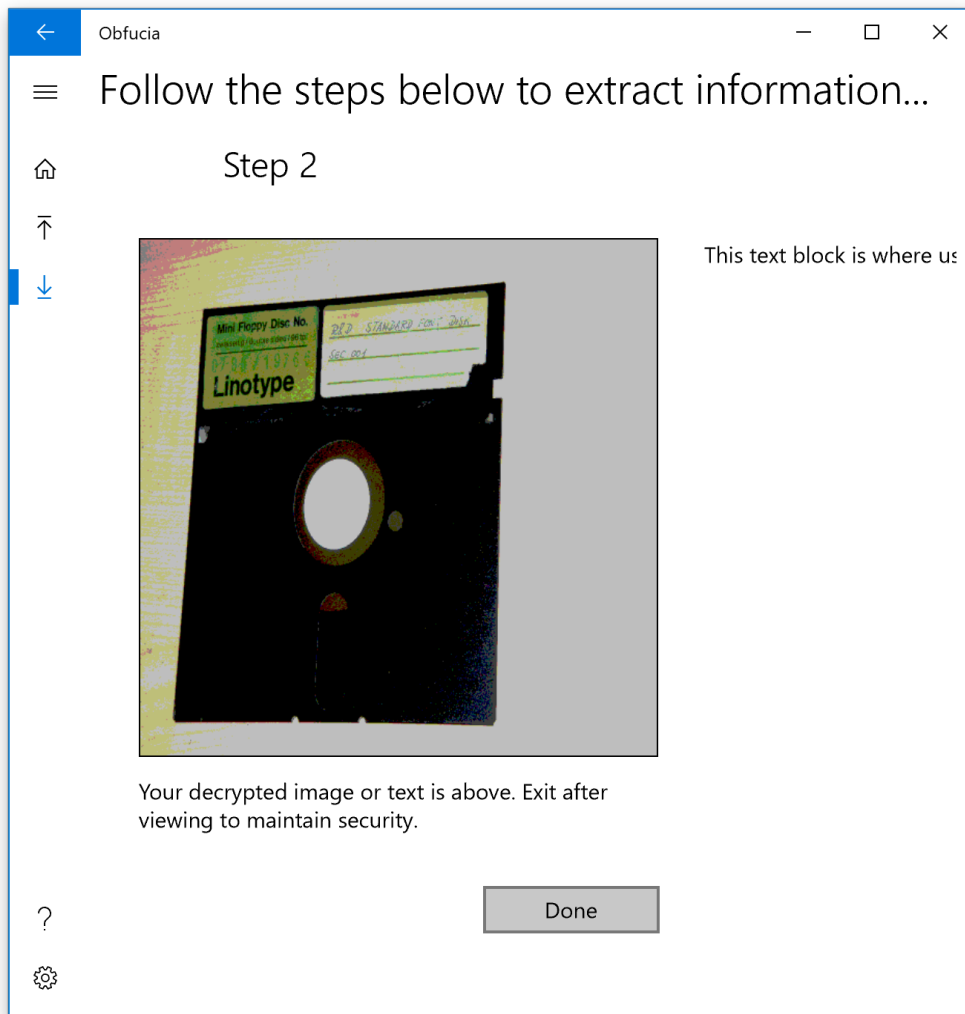
Extract Information

Extracting information from an image is an easy, two-step process. First, start by clicking on the extract information button on the left navigation bar. This will bring you to step one of the extraction process as seen below:



Select the source image that you want decoded using the file selector. Next, choose what type of encoding was used. This will be either Image to Image or ASCII to Image. Then choose next.

The next screen you will see is the decoded information:



As in the example above, you may notice some discoloration from an extracted image. This is normal, and should be no cause for alarm. This is due to the stenography method that Obfucia uses. The goal of Obfucia is to hide information, not to produce high quality images, though we are working on updating our application to produce better image quality during the decoding process.

NOTE: Once you click done, your decoded image will be cleared and you will need to go through the decoding process again to see the obfuscated information.

Accessing Documentation

All documentation for Obfucia can be access within the application by click on the help button or going to <http://docs.obfucia.com>.